COMMUNICABLE DISEASES

IN CHILD CARE SETTINGS

There are a number of steps which providers and staff of child care homes and centers can take to prevent or reduce the incidents of illness among children and adults in the child care setting.

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Michigan Department of Human Services
and
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Michigan Department of Community Health

Daily Steps to Keep Children and Adults Healthy

To provide for a healthier and safer environment on a daily basis the following steps should be taken:

1. **Wash hands** of children and adults ***frequently*** with soap and warm water especially after diapering, toileting, and nose wiping, as well as before handling food.
2. **Dry hands** with single service paper towels or an air blow dryer.
3. **Provide tissues** throughout the home or center. Staff should use tissues, individually and often, to wipe young children's nasal drainage. Remember to wash hands after each wipe.
4. **Teach children** (and adults) to cough or sneeze into tissue and not onto others, food or food service utensils.
5. **Alert observation** by caregivers for a change in a child's appearance or behavior that might indicate beginning illness. Observations should be communicated to the parent so that medical advice and diagnosis can be sought.
6. **Clean and sanitize diaper changing tables and potty chairs** after each use.
7. **Clean and sanitize toys and play equipment** regularly. Equipment and toys that are mouthed by a child should be washed before they are handled by another child. Toys used in infant/toddler rooms should be cleaned daily. Implement a sanitation checklist for keeping track of what is washed, by whom, and when.

Sanitizing Procedure
1. Wash vigorously with hot water and detergent.
2. Rinse with clean water.
3. Submerge in a *sanitizing solution.
4. Sun or air dry.

****Sanitizing Solution***
Prepare Fresh Daily
1 tablespoon chlorine bleach to each gallon of water

8. **Wash and rinse all repeated use food service** utensils, then ***sanitize*** them by submerging in a *sanitizing solution or in water at 170º F. for one minute. Remember, water over 120º F can burn. **Air dry**. ***Do not towel dry.*** Single service articles that are discarded after use may be used instead.
9. **Immediately wash, rinse, and sanitize** articles or surfaces that have been soiled with a discharge such as urine or nasal drainage. Spray or wipe, with a *sanitizing solution, those things which cannot be submerged into a *sanitizing solution***. Air dry**. ***Do not towel dry.***
10. **Assign** each child their own separate sleeping area or cot with individual bedding as well as a separate clothing storage container or space.
11. A contributing factor in the spread of diarrheal illness in child care settings is often **staff** who do food preparation as well as the diapering and toileting of children. Avoid such combined duties when making staff assignments.
12. Some microorganisms which cause disease multiply in warm, dark, damp, dirty environments. **Keep environmental surfaces clean, uncluttered, and dry** by cleaning, sanitizing and air drying. Use sunlight wherever and whenever possible to aid drying.
13. **Develop a plan** for child day care staff on how to handle illnesses and reduce their spread. Prompt action by staff and providers may prevent a serious outbreak of communicable disease.
14. **Assure that** children are vaccinated completely and on time, and assure that staff have received all recommended vaccines.

Steps to Minimize Further Spread of Disease to Children and Adults

If a communicable disease is suspected or is diagnosed in a child care setting, the following recommendations for handling communicable diseases should **promptly** be taken:

1. **Notify** the local health department and your licensing consultant of any illness shown on the attached chart.
2. **Communicate** with parents on when to exclude a child suspected of having a communicable disease. Under some special circumstances and in coordination with the health department, children ill with a specific disease may be asked to remain in the group care setting.
3. **Report** to all other parents and staff what illness children have been exposed to and what symptoms to watch for. In unusual or serious cases, call your licensing consultant and the local health department.
4. When a **diagnosed communicable disease** is present in a child care setting or a known problem in the community, do health screening of children on arrival so sick children can be quickly identified and care arrangements made.
5. **Sanitation** procedures must be strictly followed and extra precautions taken regarding food handling, dish washing and hand washing by staff and children; as well as general cleanliness of toys in the environment.
6. **Re-admission** should be upon the advice of the child's doctor, and the local health department.

Note: This chart is for information only. Diagnosis must always be made by a physician.

Common Infectious Diseases

Children should not return to day care during the contagious period unless recommended by a health department.

PRINCIPLE MODE OF SPREAD	DISEASE	SYMPTOMS	INCUBATION PERIOD	CONTAGIOUS PERIOD
AIRBORNE AND DIRECT CONTACT Disease virus and bacteria are spread by droplets from nose, throat, and mouth by sneezing, coughing, and speaking.	CHICKENPOX[1] [Varicella]	General discomfort, slight to high fever, headache and loss of appetite. Lesions appear in bunches with most on the upper body. Face and extremities are less affected. Typical lesions have teardrop shape surrounded by reddened area. Blistered (new) and broken and crusted (old) eruptions are on the skin at the same time.	10-21 days av: 14-16 days	5 days before rash to 5 days after rash first starts.
	CYTOMEGALOVIRUS [CMV]	None or mononucleosis ("mono")-like syndrome. Virtually all persons acquire CMV infection during their lifetime, and it is usually without symptoms. Infection during pregnancy may result in fetal infection.	1 month	Virus may be shed for many months with a range of 6 months to 2 years. Children should not be excluded from child care due to shedding of CMV.
	FIFTH DISEASE [Erythema infectisum] [Parvovirus B19]	Rash begins as a solid red area on cheeks ["slapped cheek" appearance], spreading to upper arms and legs, trunk, and hands and feet. Fever occurs in some patients.	4-20 days	Patients are most infectious **before** the onset of illness. They are not likely to be infectious after rash and other symptoms appear.
	INFLUENZA [Viral influenza]	Illness starts suddenly with chills, fever, headache, muscle pains and coughing. This is followed by other cold symptoms.	24-72 hours	1 day before onset of symptoms to about 7 days from the first symptoms in children.
	MEASLES[1] [Rubeola]	Illness begins with 3 to 4 days of gradually increasing fever, runny nose, (red) inflamed eyes, and coughing. Rash usually begins around ears and hairline 3 to 4 days after onset of illness, spreading down to cover face, trunk and arms by second day. Rash is initially bright pink with distinct raise spots. The rash lasts about 5 days. Sensitivity to light is also common.	8-13 days av: 10 days	4 days before rash and for up to 4 days after.
	MENINGITIS [Meningococcal and *Haemophilus*[1]]	Illness has a sudden onset of high fever, headache, and stiff neck. In severe cases, delirium stupor or coma can also occur. In meningococcal meningitis, purplish spots may be seen on the skin and mucous membranes.	1-10 days av: 2-4 days	Until live bacteria is no longer present in nasal and mouth secretions. This usually occurs 24-48 hours after antimicrobial treatment.
	MUMPS[1] [Infectious parotitis]	Onset is gradual. There may be chills, discomfort, headache, pain below ears accompanied by a moderate fever of 101º-102ºF. or higher followed by swelling of one or both salivary glands. Swelling is below and in front of ear. Usually swelling in one gland subsides as the other begins to swell. The ear lobe is often pushed forward by the swelling of the gland. Swelling usually lasts 5-7 days.	2-3 weeks av: 18 days	May be as long as 7 days prior to the onset of salivary gland swelling; and usually 5 but occasionally as long as 9 days after onset.
	RESPIRATORY SYNCYTIAL VIRUS [RSV]	Respiratory tract infections – symptoms depend on site of involvement: bronchitis, pneumonia, and/or ear infections. Infants and children with underlying cardiac, immunologic, and pulmonary disease have the most severe symptoms.	3 to 7 days	Young infants: 1 to 3 weeks or more. Older children and adults: 3 to 7 days.
	ROSEOLA [Exanthm subitum] [Human herpesvirus 6]	Illness is marked by a sudden high fever (104º-105ºF.) which falls with the appearance of a rash on about the third or fourth day of illness. Most cases are in children between 6 months and 3 years. The rash consists of small rose-pink spots which first appear on the chest and abdomen but may spread to the face and legs and arms. The rash is usually limited to only one or two days.	9 days	Greatest during the period of fever.
	RUBELLA[1] [German Measles]	The rubella rash begins on the face and spreads to the rest of the body within 24 hours. The rash disappears in the order of first appearance and is usually gone by the end of the third day of rash. A distinctive feature of this usually mild, feverish illness that is often present is a pronounced swelling of the lymph nodes behind the ear and at the base of the skull. Mild, "cold-like" symptoms including coughing, sneezing and reddened eyes are common early in the course of the illness. Joint pains are frequent in older patients.	14-21 days av: 16-18 days	7 days before to 7 days after rash onset.
	SCARLET FEVER [Scarlatina] **including** STREP THROAT [Streptococcal sore throat]	Caused by the streptococcal bacterium. Illness begins with fever and sore throat. Rash appears as a pink-red flush which looks like a sunburn with goose pimples, that spreads to all parts of the body. Afterwards the skin may peel off like sunburn. Often tongue has a "strawberry" appearance. Strep throat is similar to scarlet fever but without the rash. A sore throat and fever are the most pronounced symptoms.	2-5 days	Variable. If not treated, can be contagious for weeks.

	STREPTOCOCCUS PNEUMONIAE[1]	Variable, depends on site of infection – ear infection, sinusitis, bloodstream infections, pneumonia, or meningitis	Unknown. Maybe 1-3 days	Variable. Usually 24-48 hours after antimicrobial therapy.
	TUBERCULOSIS [TB]	Most children have no symptoms when first infected. When disease does occur, symptoms most often appear 1 to 6 months following infection. The symptoms for pulmonary TB include fever, growth delay or weight loss, cough, night sweats, and chills. TB disease outside the lungs may cause meningitis, or disease of the lymph nodes, bones, joints, and skin.	2-10 weeks	Variable. After starting treatment with anti TB drugs, a symptomatic patient may become non-infectious in as little as two weeks.
	WHOOPING COUGH [Pertussis] [1]	The initial signs are runny nose and sneezing followed 1-2 weeks later by spasms of coughing characterized by a series of short convulsive-like coughs, followed by a high pitched gasp of air called a whoop. Coughing may also be associated or vomiting.	6-20 days av: 7-10 days	Early, when patient has common cold-like symptoms. The patient becomes less infectious as the convulsive-like coughs begin. Infectious stage ends in about four weeks.
FECAL-ORAL Contamination of hands, food and drink or of objects placed in the mouth.	CAMPYLOBACTER [Vibionic enteritis]	The disease is recognized by sudden onset of fever and abdominal pain and diarrhea which may be severe. There may also be vomiting or blood in the stools.	1-10 days av: 2-5 days	Throughout the illness (1-2 weeks). If not treated, up to 7 weeks.
	E. COLI 0157 [Escherichia coli, Shiga Toxin]	Initially, nonbloody diarrhea which becomes bloody on day 2-3 of illness. Severe abdominal cramps, nausea, vomiting; usually no fever. May be associated with a severe illness called hemolytic-uremic syndrome (HUS). Highly infectious.	Variable; 2-10 days.	For duration of diarrhea thereafter until stool is culture negative.
	GIARDIASIS [Protozoan diarrhea]	Chronic, intermittent diarrhea, bloating, foul-smelling stools and fatigue and weight loss. Sometimes observable symptoms are not present.	1-4 weeks	Entire period of infection.
	SALMONELLOSIS [Acute gastroenteritis] [Food poisoning]	Sudden onset of fever, abdominal cramps, diarrhea, and possible vomiting. There may be blood in the stools.	6-72 hours av: 12-36 hours	Variable. Throughout course of illness. Infants can be carriers for extended periods of time.
	SHIGELLOSIS [Acute gastroenteritis] [Food poisoning]	Sudden onset of fever, diarrhea, abdominal pain. Loss of appetite and vomiting may also occur. There may be blood, mucus, or pus in the stools. Highly infectious.	1-7 days av: 2-4 days	From onset of illness until stool culture is negative.
	VIRAL GASTROENTERITIS [Norovirus; winter vomiting Rotavirus]	Abrupt onset of illness characterized by any combination of the following symptoms: nausea, vomiting, diarrhea, abdominal pain and discomfort. Fever, if present, is usually low grade. Occurs most often between November and April, but can occur at any time. Very contagious illness. Transmission may also occur through aerosolization of enteric fluid droplets.	24-72 hours	From onset of illness until symptoms subside (4-6 days).
	HEPATITIS A [Infectious hepatitis] [Epidemic jaundice]	Sudden start with loss of appetite, nausea and abdominal pain or discomfort. Within a few days, jaundice occurs with yellowing of eyes and skin and darkening of urine. Symptoms are generally absent or much milder in children compared with adults.	15-50 days av: 28-30 days	1-2 weeks before symptom onset to one week after jaundice development. Shedding mast last for 6 months in rare instances.

[1]Immunizations can help prevent this illness.

Other serious diseases such as polio, typhoid, syphilis, hepatitis B, and gonorrhea are not included on this chart because their occurrence is less common than diseases listed here. **Should one of these illnesses be suspected in a child, it must be reported immediately to the local health authority and to the licensing consultant.**

Common Nuisance Diseases

PRINCIPLE MODE OF SPREAD	DISEASE	SYMPTOMS	INCUBATION PERIOD	CONTAGIOUS PERIOD
INFESTATIONS Contact with others, including their belongings	HEAD LICE; CRABS [PEDICULOSIS]	Gradual onset of itching and burning. Scalp becomes dry and pink with patches that tend to spread, become rough and flake-off. Hair may become matted, as nits (white eggs) stick to hair shafts. Close examination show nits on hair near the scalp.	6-10 days	Until eggs and lice in hair, on clothing, and bedding have been destroyed.
	RINGWORM [Tinea capitis; tinea corporis]	Ringworm of the scalp begins as a small pimple which grows and spreads, leaving scaly patches of temporary baldness. Ringworm of the body appears as flat, spreading ring-shaped lesions. The outside is usually red while the skin on the inside tends to appear lighter.	Unknown	As long as lesions are present and spores persist on contaminated materials.
	PINWORM [Enterobiasis]	A mild illness with itching in anal area, disturbed sleep, irritability and local irritation due to scratching.	Unknown	As long as the female worm survives in the intestine.
	SCABIES [Itch]	A skin disease characterized by pimples and tiny burrows that appear as slightly discolored lines. Intense itching is frequent. Areas most affected are skin folds, such as between fingers, inside elbow, inner thighs, waistline, genital area, and between buttocks.	2-6 weeks for first infestation. 1-4 days for those infected before.	Until mites are destroyed by treatment. Cases should be re-evaluated every week for 4 weeks for symptom resolution. Consideration for repeating treatment should occur if symptoms do not resolve.

DIRECT CONTACT Direct skin contact with wounds or discharges from an infected person.	IMPETIGO [Impetigo contagiosa]	An inflammatory skin disease marked by isolated pus filled spots which become crusted and break releasing a straw colored fluid. Occurs principally around the mouth and nostrils.	4-10 days	As long as pus filled lesions continue to drain.
	HERPES [Herpes simplex; cold sore; fever blister]	An infectious disease characterized by thin walled blisters which tend to recur in the same area of skin. Common sites include the lips, gums, cheeks, and eye lids.	2-12 days	Up to 7 weeks after first infection and whenever blisters are present in repeated episodes.
	PINKEYE [Epidemic form of acute conjunctivitis]	An irritation of the mucus membranes which line the eye accompanied by a discharge of tears, swelling of lids, extreme sensitivity to light, and a buildup of a sticky fluid which dries to a straw colored crusty material and tends to accumulate at the corners of the eye.	27-72 hours	During the period of active infection. Some children recover in only a few days but many cases take 2 to 3 weeks.
	HAND, FOOT & MOUTH [Herpangina] [Coxsackievirus]	Sudden onset of fever and development of tiny blisters inside of the mouth and throat and on the extremities.	3-6 days	Probably from 2 to 3 days before onset to several days after onset.

EFFECTIVE HAND WASHING

Hand washing is the **single most effective way to prevent** the spread of **illness** in child care settings. Illness rates will drop remarkably when adults and children wash hands frequently after toileting, diapering and coming in contact with body fluids; caring for an ill child; **before** handling foods; and when hands are soiled.

HOW TO EFFECTIVELY WASH HANDS:

First - Wet hands under warm water.

Second - Apply soap.

Third - Vigorously rub hands together for at least **10-15 seconds** to lather **all** surfaces of the hands.

Fourth - Thoroughly rinse hands under warm running water.

Fifth - Dry hands using a single-use disposable towel or air dryer.

Please note that a quick pass under the faucet to dampen hands IS NOT an effective way to wash hands!

KEEPING DIAPER CHANGING SURFACES CLEAN

1. Surface should have plastic covered pad with no cracks or tears.
2. Use disposable material to cover the pad on changing table--shelf paper, wax paper, scrap computer paper, cut up paper bags. Discard after each changing.
3. Clean the surface after every diaper change by washing with detergent, water, and friction, rinsing with clean water, and applying a *sanitizing or disinfecting agent. The *sanitizing/disinfecting agent can be sprayed on.
4. Caregivers must wash their hands immediately with warm running water and soap, use friction and lather--special attention must be given to under fingernails. The diapered child's hands should be washed also.

APPROPRIATE USE OF ANTIBIOTICS AND ANTIBIOTIC RESISTANCE

Antibiotics are very useful drugs for certain types of infections caused by bacteria, but they **should not be used for** such illnesses as **colds, flu, or other viral infections**. Not all cases of ear infections, sore throat, coughs or sinusitis require antibiotic treatment since many are caused by viruses. Viral infections are not stopped by antibiotics.

Antibiotics should never be taken for viral infections. In fact, as many as half of the courses of antibiotics which are prescribed each year in the United States are unnecessary. This is important because unnecessary and improper use of antibiotics results in bacteria that are antibiotic resistant. When antibiotics are prescribed by a doctor, they should be taken exactly as prescribed until gone.

Fever and Measuring a Child's Temperature

Fevers have many causes. Although fevers may occur during teething, it is important to rule out other, more serious causes of elevated temperature which may require specific treatment. It is generally recommended that a child who has been running a fever of 101°F (38.3°C) or greater should stay home until the temperature has stayed below 100.2°F (37.9°C) for 24 hours. However, **a final decision regarding a child's return to child care should be made based on the child's overall condition in conjunction with his or her health care provider, and in an outbreak situation with the local health department.**

When a fever is suspected a child's temperature may be taken in a number of ways. Some methods, however, present more risk than others to the child. One of the safest methods, under the arm of the child, follows:

1. **Wipe** one armpit dry.
2. **Place** the bulb end of the thermometer against the skin under the dry armpit. (Make sure clothing does not interfere.)
3. **Hold** the child's elbow close to his side and place his hand on the opposite shoulder to keep the thermometer in place. If you hold the child in your arms or on your lap, you may feed him or read to him during the time you are taking the temperature.
4. **Keep** his arm in this position for at least **5 minutes** before removing the thermometer.
5. Write down the reading. **The normal body temperature under the arm is 97.6ºF.**

An alternative method for taking a child's temperature is to use a **tympanic (ear) thermometer**. The directions that come with this type of thermometer should be carefully read and followed.

6. Mercury-containing thermometers should never be used and should be disposed of in an approved manner.

Vaccines to Protect Children

A vaccine is something given to a child that helps his or her body develop immunity. Vaccines help your body to produce antibodies which will destroy germs which cause some diseases. These antibodies stay in your blood and if the same germ enters your body again, your body is ready to kill the germs right away – before you get sick. If enough people get shots, a disease may be controlled or stopped. But if people stop getting shots, the disease can come back.

Some vaccines are so effective and the diseases they prevent are so serious that immunization has become a standard practice. To help make sure that all children get the protection these vaccines offer, all states have laws that require children in child care centers and schools to be immunized with the number of doses appropriate for the child's age. For most children, a series of vaccinations is given, including **4 doses of DTaP** [diphtheria, tetanus, and (acellular) pertussis], **3 doses of polio**, **1 dose of MMR** [measles, mumps, and rubella], **3 or 4 doses of HIB** [*Haemophilus influenzae* type b], **3 doses of hepatitis B**, and **1 dose of varicella** [chicken pox]. A relatively new vaccine, the conjugated pneumococcal vaccine, while not required, is recommended for children in day care centers. It is very effective in protecting against one type of serious meningitis. Some vaccines are recommended to help control the spread of other diseases such as Hepatitis A or influenza.

Monitor children's immunization status, to remind parents when children are due for an immunization. Also encourage staff to review their own immunization status.

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